

WHAT IS CLAIMED IS:

1. A mobile radio communication system in which location-limited mobile stations can be used, comprising:

a registered area storage means in which information concerning registered areas, which have been registered as areas where a location-limited mobile station is allowed to originate a call, is stored with regard to each location-limited mobile station;

a registered area search means for referring to the registered area storage means and thereby searching for the registered areas of a location-limited mobile station when the location-limited mobile station originated a call;

an area comparison means for comparing the registered areas of the location-limited mobile station searched by the registered area search means with present location areas of the location-limited mobile station and thereby judging whether or not a match occurred between the registered areas and the present location areas; and

a connection establishment means for executing a connection establishment process for the location-limited mobile station if a match occurred in the judgment by the area comparison means.

2. A mobile radio communication system as claimed in claim 1, wherein the registered area storage means is designed so that the registered areas of each location-limited mobile station can be altered so as to change the total area of the registered areas.

3. A mobile radio communication system as claimed in claim 1, wherein the registered area storage means is designed so that the registered areas of each location-limited mobile station can be altered to alternative registered areas during a preset period.

4. A mobile radio communication system in which location-limited mobile stations can be used, comprising:

a registered area storage means in which information concerning registered areas, which have been registered as areas where a location-limited mobile station is allowed to conduct communication, is stored with regard to each location-limited mobile station;

a present location area tracking means for keeping track of present location areas of a location-limited mobile station when the location-limited mobile station is conducting communication;

a registered area search means for referring to the registered area storage means and thereby searching for the registered areas of the location-limited mobile station;

an area comparison means for comparing the registered areas of the location-limited mobile station searched by the registered area search means with the present location areas of the location-limited mobile station tracked by the present location area tracking means and thereby judging whether or not a match occurred between the registered areas and the present location areas; and

a disconnection means for disconnecting the communication conducted by the location-limited mobile station if no match occurred in the judgment by the area comparison means.

5. A mobile radio communication system as claimed in claim 4, wherein the registered area storage means is designed so that the registered areas of each location-limited mobile station can be altered so as to change the total area of the registered areas.

6. A mobile radio communication system as claimed in claim 4, wherein the registered area storage means is designed so that the registered areas of each location-limited mobile station can be altered to

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10. A mobile radio communication system in which location-limited mobile stations can be used, comprising:

a registered area storage means in which information concerning registered areas, which have been registered as areas where a location-limited mobile station is allowed to receive an incoming call, is stored with regard to each location-limited mobile station;

a registered area search means for referring to the registered area storage means and thereby searching for the registered areas of a location-limited mobile station when an incoming call to the location-limited mobile station occurred;

a paging means for letting base transceiver stations corresponding to the registered areas page the location-limited mobile station in the registered areas; and

a connection establishment means for executing a connection establishment process for the location-limited mobile station if the location-limited mobile station made a response to the paging.

11. A mobile radio communication system as claimed in claim 10, wherein the registered area storage means is designed so that the registered areas of each location-limited mobile station can be altered so as to change the total area of the registered areas.

12. A mobile radio communication system as claimed in claim 10, wherein the registered area storage means is designed so that the registered areas of each location-limited mobile station can be altered to alternative registered areas during a preset period.

13. A mobile radio communication system in which location-limited mobile stations can be used, comprising:

a registered area storage means in which information concerning

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1. The first part of the document is a list of names and their corresponding dates. The names are: "John Doe", "Jane Smith", "Bob Johnson", "Alice Brown", "Charlie White", "David Green", "Eve Black", "Frank Gray", "Grace Pink", "Henry Blue", "Ivy Yellow", "Jack Purple", "Karen Red", "Leo Orange", "Mia Silver", "Noah Gold", "Olivia Bronze", "Peter Copper", "Quinn Iron", "Ruth Tin", "Sam Lead", "Tina Zinc", "Uma Nickel", "Victor Platinum", "Wendy Silver", "Xavier Gold", "Yara Bronze", "Zoe Copper". The dates are: "1990-01-01", "1990-02-01", "1990-03-01", "1990-04-01", "1990-05-01", "1990-06-01", "1990-07-01", "1990-08-01", "1990-09-01", "1990-10-01", "1990-11-01", "1990-12-01", "1991-01-01", "1991-02-01", "1991-03-01", "1991-04-01", "1991-05-01", "1991-06-01", "1991-07-01", "1991-08-01", "1991-09-01", "1991-10-01", "1991-11-01", "1991-12-01", "1992-01-01", "1992-02-01", "1992-03-01", "1992-04-01", "1992-05-01", "1992-06-01", "1992-07-01", "1992-08-01", "1992-09-01", "1992-10-01", "1992-11-01", "1992-12-01".

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allowed to receive an incoming call is stored with regard to each location-limited mobile station, is referred to and thereby the registered areas of a location-limited mobile station is searched for when an incoming call to the location-limited mobile station occurred;

a paging step in which the location-limited mobile station is paged in the registered areas; and

a connection establishment step in which a connection establishment process is executed for the location-limited mobile station

15 if the location-limited mobile station made a response to the paging.

26. A mobile radio communication method as claimed in claim 25, wherein the registered areas of each location-limited mobile station are allowed to be altered so as to change the total area of the registered areas.

27. A mobile radio communication method as claimed in claim 25, wherein the registered areas of each location-limited mobile station are allowed to be altered to alternative registered areas during a preset period.

28. A mobile radio communication method for a mobile radio communication system in which location-limited mobile stations can be used, comprising the steps of:

a paging step in which a location-limited mobile station is paged when an incoming call to the location-limited mobile station occurred;

a registered area search step in which a registered area storage means, in which information concerning registered areas which have been registered as areas where a location-limited mobile station is allowed to receive an incoming call is stored with regard to each location-

10 limited mobile station, is referred to and thereby the registered areas of

the location-limited mobile station is searched for; and

a connection establishment step in which a connection establishment process is executed for the location-limited mobile station if the location-limited mobile station made a response to the paging from its registered areas.

29. A mobile radio communication method as claimed in claim 28, wherein the registered areas of each location-limited mobile station are allowed to be altered so as to change the total area of the registered areas.

30. A mobile radio communication method as claimed in claim 28, wherein the registered areas of each location-limited mobile station are allowed to be altered to alternative registered areas during a preset period.

31. A machine-readable record medium storing a program for instructing a machine, a computer unit, etc. to execute a mobile radio communication method for a mobile radio communication system in which location-limited mobile stations can be used, wherein the mobile radio communication method comprises the steps of:

10 a registered area search step in which a registered area storage means, in which information concerning registered areas which have been registered as areas where a location-limited mobile station is allowed to originate a call is stored with regard to each location-limited mobile station, is referred to and thereby the registered areas of a location-limited mobile station is searched for when the location-limited mobile station originated a call;

an area comparison step in which the registered areas of the location-limited mobile station searched in the registered area search

15 step are compared with present location areas of the location-limited mobile station and thereby whether or not a match occurred between the registered areas and the present location areas is judged; and

20 a connection establishment step in which a connection establishment process is executed for the location-limited mobile station if a match occurred in the area comparison step.

32. A machine-readable record medium as claimed in claim 31, wherein the registered areas of each location-limited mobile station are allowed to be altered so as to change the total area of the registered areas.

33. A machine-readable record medium as claimed in claim 31, wherein the registered areas of each location-limited mobile station are allowed to be altered to alternative registered areas during a preset period.

34. A machine-readable record medium storing a program for instructing a machine, a computer unit, etc. to execute a mobile radio communication method for a mobile radio communication system in which location-limited mobile stations can be used, wherein the mobile radio communication method comprises the steps of:

a present location area tracking step in which present location areas of a location-limited mobile station are kept track of when the location-limited mobile station is conducting communication;

10 a registered area search step in which a registered area storage means, in which information concerning registered areas which have been registered as areas where a location-limited mobile station is allowed to conduct communication is stored with regard to each location-limited mobile station, is referred to and thereby the registered areas of the location-limited mobile station is searched for,

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an area comparison step in which the registered areas of the location-limited mobile station searched in the registered area search step are compared with the present location areas of the location-limited mobile station tracked in the present location area tracking step and thereby whether or not a match occurred between the registered areas and the present location areas is judged; and

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a disconnection step in which the communication conducted by the location-limited mobile station is disconnected if no match occurred in the area comparison step.

35. A mobile radio communication method as claimed in claim 34, wherein the registered areas of each location-limited mobile station are allowed to be altered so as to change the total area of the registered areas.

36. A mobile radio communication method as claimed in claim 34, wherein the registered areas of each location-limited mobile station are allowed to be altered to alternative registered areas during a preset period.

37. A machine-readable record medium storing a program for instructing a machine, a computer unit, etc. to execute a mobile radio communication method for a mobile radio communication system in which location-limited mobile stations can be used, wherein the mobile radio communication method comprises the steps of:

a registered area search step in which a registered area storage means, in which information concerning registered areas which have been registered as areas where a location-limited mobile station is allowed to receive an incoming call is stored with regard to each location-limited mobile station, is referred to and thereby the registered areas of a

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location-limited mobile station is searched for when an incoming call to the location-limited mobile station occurred;

an area comparison step in which the registered areas of the location-limited mobile station searched in the registered area search step are compared with present location areas of the location-limited mobile station and thereby whether or not a match occurred between the registered areas and the present location areas is judged; and

a connection establishment step in which a connection establishment process is executed for the location-limited mobile station if a match occurred in the area comparison step.

38. A mobile radio communication method as claimed in claim 37, wherein the registered areas of each location-limited mobile station are allowed to be altered so as to change the total area of the registered areas.

39. A mobile radio communication method as claimed in claim 37, wherein the registered areas of each location-limited mobile station are allowed to be altered to alternative registered areas during a preset period.

40. A machine-readable record medium storing a program for instructing a machine, a computer unit, etc. to execute a mobile radio communication method for a mobile radio communication system in which location-limited mobile stations can be used, wherein the mobile radio communication method comprises the steps of:

a registered area search step in which a registered area storage means, in which information concerning registered areas which have been registered as areas where a location-limited mobile station is allowed to receive an incoming call is stored with regard to each location-

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10 limited mobile station, is referred to and thereby the registered areas of a location-limited mobile station is searched for when an incoming call to the location-limited mobile station occurred;

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a paging step in which the location-limited mobile station is paged in the registered areas; and

15 a connection establishment step in which a connection establishment process is executed for the location-limited mobile station if the location-limited mobile station made a response to the paging.

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41. A mobile radio communication method as claimed in claim 40, wherein the registered areas of each location-limited mobile station are allowed to be altered so as to change the total area of the registered areas.

42. A mobile radio communication method as claimed in claim 40, wherein the registered areas of each location-limited mobile station are allowed to be altered to alternative registered areas during a preset period.

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43. A machine-readable record medium storing a program for instructing a machine, a computer unit, etc. to execute a mobile radio communication method for a mobile radio communication system in which location-limited mobile stations can be used, wherein the mobile radio communication method comprises the steps of:

a paging step in which a location-limited mobile station is paged when an incoming call to the location-limited mobile station occurred;

a registered area search step in which a registered area storage means, in which information concerning registered areas which have been registered as areas where a location-limited mobile station is allowed to receive an incoming call is stored with regard to each location-

limited mobile station, is referred to and thereby the registered areas of the location-limited mobile station is searched for; and

a connection establishment step in which a connection establishment process is executed for the location-limited mobile station if the location-limited mobile station made a response to the paging from its registered areas.

44. A mobile radio communication method as claimed in claim 43, wherein the registered areas of each location-limited mobile station are allowed to be altered so as to change the total area of the registered areas.

45. A mobile radio communication method as claimed in claim 43, wherein the registered areas of each location-limited mobile station are allowed to be altered to alternative registered areas during a preset period.